

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A material which shatters, when broken, into fragments which do not cut, puncture or otherwise damage human skin or tissue, wherein the material is comprised of an amorphous thermoplastic polymer and one or more low molecular weight resins.
2. (Original) A material as claimed in Claim 1 comprised of a simple mixture of amorphous thermoplastic polymer and one or more low molecular resins.
3. (Currently Amended) A material as claimed in ~~any one of the preceding Claims~~ Claim 1, wherein the amorphous thermoplastic polymer is selected from the group consisting of polystyrene (PS), polymethyl methacrylate (PMAA), styrene- acrylonitrile copolymer (SAN), linear polyesters and co-polyesters and polycarbonate (PC).
4. (Currently Amended) A material as claimed in ~~any one of the preceding claims~~ Claim 1 having a tensile stress limit between 11 and 60 Nmm-2.
5. (Currently Amended) A material as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the low molecular weight resin has an Mn (number average molecular weight) such

that it has less than 500 repeating units.

6. (Original) A material as claimed in Claim 5 wherein the low molecular weight resin has an Mn (number average molecular weight) such that it has less than 50 repeating units.
7. (Currently Amended) A material as claimed ~~in any one of the preceding claims~~ Claim 1 manufactured in sheet form.
8. (Original) A polymeric blend comprising a polymer selected from the group consisting of: polystyrene (PS), polymethyl methacrylate (PMAA), styrene- acrylonitrile copolymer (SAN), linear polyesters and co-polyesters and polycarbonate (PC) and one or more low molecular weight resins.
9. (Original) A polymeric blend as claimed in Claim 8 wherein the one or more low molecular weight resins have an Mn (number average molecular weight) such that it has less than 500 repeating units.
10. (Original) A polymeric blend as claimed in Claim 9 wherein the one or more low molecular weight resins have an Mn (number average molecular weight) such that it has less than 50 repeating units.
11. (Currently Amended) A polymeric blend as claimed ~~in any one of Claims 8 to 10~~ Claim 8, wherein the one or more molecular weight resins are hydrocarbon resins.
12. (Original) A polymeric blend as claimed in Claim 11 wherein the hydrocarbon resins

are aromatic hydrocarbon resins.

13. (Currently Amended) A polymeric blend as claimed in ~~any one of Claims 8 to 12~~ Claim 8 manufactured in sheet form.

14. (Original) A material which shatters, when broken, into fragments which do not cut, puncture or damage human skin or tissue, the material being comprised of polystyrene and one or more low molecular weight resins.

15. (Original) A material as claimed in Claim 14 comprised of a simple mixture of polystyrene and one or more low molecular weight resins.

16. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 15~~ Claim 14, wherein the one or more low molecular weight resins are hydrocarbon resins.

17. (Original) A material as claimed Claim 16 wherein the hydrocarbon resins are aromatic hydrocarbon resins.

18. (Original) A material as claimed in Claim 17 wherein the aromatic hydrocarbon resins are C9 aromatic hydrocarbon resins.

19. (Currently Amended) A material as claimed in ~~any one Claims 14 to 18~~ Claim 14, wherein the one or more low molecular weight resins are, or are derived from, alpha methyl styrene.

20. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 19~~ Claim 14, wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of; Norsolene™, Kristalex*", Plastolyn™, Endex, Piccotex, Piccolastic, Sukorez or Arkon.

21. (Original) A material as claimed in Claim 20 wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of; Norsolene W901, Norsolene W100', Norsolene W110™, Kristalex F851, Kristalex F100, Kristalex F115", Plastolyn 240, Plastolyn 290, Endexl55 Piccolastic D125, Sukorez 100, Sukorez 120™, Arkon P100, Arkon P125™, Arkon P140™, Piccotex 75™, Piccotex 100 or Piccotex 120.

22. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 21~~ Claim 14, wherein the one or more low molecular weight resins have an Mn (number average molecular weight) such that it has less than 500 repeating units.

23. (Original)A material as claimed in Claim 22 wherein the one or more low molecular weight resins have an Mn (number average molecular weight) such that it has less than 50 repeating units

24. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 23~~ Claim 14 having a tensile stress limit between 11 and 60 Nmm-2.

25. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 24~~ Claim 14, which also includes one or more additives selected from the group including W inhibitors, antioxidants, flow modifiers, fire retarding agents, colour pigments and brighteners, and oxygen scavengers.

26. (Currently Amended) A material as claimed in ~~any one of Claims 14 to 25~~ Claim 14, manufactured in sheet form.

27. (Original) A method of manufacturing a material which shatters, when broken, into fragments which do not cut, puncture or damage human skin or tissue, the method comprising the step of mixing an amorphous thermoplastic polymer and one or more low molecular weight resins.

28. (Original) A material as claimed in Claim 27 wherein the amorphous thermoplastic polymer is chosen from the group consisting of polystyrene (PS), Polymethyl methacrylate (PMAA), styrene- acrylonitrile copolymer (SAN), linear polyesters and co-polyesters polycarbonate (PC).

29. (Currently Amended) A material as claimed in ~~any one of Claims 27 to 28~~ Claim 27, wherein the one or more low molecular weight resins are hydrocarbon resins.

30. (Original) A material as claimed in Claim 29 wherein the hydrocarbon resins are aromatic hydrocarbon resins.

31. (Currently Amended) A material as claimed in ~~any one of Claims 27 to 30~~ Claim 27, wherein the low molecular weight resin has an Mn (number average molecular weight) such that it has less than 500 repeating units.

32. (Original) A material as claimed in Claim 31 wherein the low molecular weight resin has an Mn (number average molecular weight) such that it has less than 50 repeating units.

33. (Currently Amended) A material as claimed in ~~any one Claims 27 to 37~~ Claim 27, wherein the glass transition temperature (Tg) of the material is elevated as the amorphous thermoplastic polymer is mixed with the one or more low molecular weight hydrocarbon resins.

34. (Original) A material as claimed in Claim 33 when the Tg is elevated to 5-10°C higher than the base polymer.

35. (Original) A method of manufacturing a material which shatters, when broken, into fragments which do not cut, puncture or damage human skin or tissue, the methods comprising the step of mixing polystyrene and one or more low molecular weight hydrocarbon resins.

36. (Original) A method as claimed in Claim 35 wherein the one or more low molecular weight resins are hydrocarbon resins.

37. (Original) A method as claimed in Claim 36 wherein the hydrocarbon resins are

aromatic hydrocarbon resins.

38. (Original) A method as claimed in Claim 36 wherein the aromatic hydrocarbon resins are C9 aromatic hydrocarbon resins.

39. (Currently Amended) A method as claimed in ~~any one of Claims 35 to 38~~ Claim 35, wherein the one or more low molecular weight resins are, or are derived from, alpha methyl styrene.

40. (Currently Amended) A method as claimed in ~~any one of Claims 35 to 39~~ Claim 35, wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of; Norsolene, Kristalex, Plastolyn, Endex, Piccotex, Piccolastic, Sukorez or Arkon™.

41. (Original) A method as claimed in Claim 40 wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of Norsolene W90*", Norsolene W100™, Norsolene W110™, Kristalex F85, Kristalex F100, Kristalex Full5, Plastolyn 240™, Plastolyn 290, Endex155, Piccolastic D125T", Sukorez 100™, Sukorez 1201, Arkon P100™, Arkon P125™, Arkon P140™, Piccotex 75T", Piccotex 100™ or Piccotex 120™.

42. (Currently Amended) A method as claimed as in ~~any one of Claims 35 to 41~~ Claim 35, wherein the low molecular weight resin has an Mn (number average molecular weight) such

that it has less than 500 repeating units.

43. (Original) A method as claimed in Claim 42 wherein the low molecular weight resin has an Mn (number average molecular weight) such that it has less than 50 repeating units.

44. (Currently Amended) A method as claimed in ~~any one of Claims 35 to 43~~ Claim 35, comprising the additional step of adding one or more additives selected from the group consisting of W inhibitors, antioxidants, flow modifiers, fire retarding agents, colour pigments and brighteners and oxygen scavengers as known in the art.

45. (Currently Amended) A method as claimed in ~~any one of Claims 35 to 44~~ Claim 35, where the glass transition temperature (T_g) of the material is elevated as the polystyrene is mixed with one or more low molecular weight hydrocarbon resins.

46. (Original) A method as claimed in Claim 45 wherein the T_g is elevated to 5 to 10°C higher than the base polymer.

47. (Original) A container manufactured from a material that shatters when broken into fragments which do not cut, puncture or otherwise damage human skin or tissue.

48. (Original) A container as claimed in Claim 47 which is a bottle.

49. (Original) A container as claimed in Claim 47 which is a glass.

50. (Original) A container as claimed in Claim 47 which is a tumbler.

51. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 50~~ Claim 47, wherein the material is a mixture of an amorphous thermoplastic polymer and one or more low molecular weight resins.

52. (Original) A container as claimed in Claim 51 wherein the amorphous thermoplastic polymer is chosen from the group consisting of: polystyrene (PS), styrene- acrylonitrile co-polymer (SAN); linear polyesters and co-polyesters polycarbonate (PC).

53. (Original) A container as claimed in Claim 51 wherein the one or more low molecular weight resins are hydrocarbon resins.

54. (Original) A container as claimed in A container as claimed in Claim 53 wherein the one or more low molecular weight resins are aromatic hydrocarbon resins

55. (Currently Amended) A container as claimed in ~~Claims 53 to 54~~ Claim 53, wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of: Norsolene™, Krystalex, Plastolyn™, Endex, Piccotex™, Piccolastic™, Sukorez™, Arkon

56. A container as claimed in Claim 55 wherein the one or more low molecular weight hydrocarbon resins are selected from a group consisting of: Norsolene W90, Norsolene W100™, Norsolene W110, Kristalex F85, Kristalex F100, Kristalex F115 Plastolyn 240™, Plastolyn 290, Endex 155 Piccolastic D125, Sukorez 100, Sukorez 120, Arkon P100

TM, Arkon P125 TM, Arkon P140 TM, Piccotex 75 TM, Piccotex 100 or Piccotex 120 TM.

57. (Currently Amended) A container as claimed in ~~any one of Claims 51 to 56~~ Claim 51, wherein the low molecular weight resin will have a Mn (number average molecular weight) such that it has less than 500 repeating units.

58. (Currently Amended) A container as claimed in ~~any one of Claims 51 to 56~~ Claim 51, wherein the low molecular weight resin will have a Mn (number average molecular weight) such that it has less than 50 repeating units.

59. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 58~~ Claim 47, wherein the material has a tensile stress limit between 11 and 60 Nmm.

60. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 59~~ Claim 47 manufactured using injection blow moulding and/or injection stretch blow moulding techniques.

61. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 59~~ Claim 47, manufactured using extrusion blow moulding.

62. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 61~~ Claim 47, wherein the material contains an oxygen barrier.

63. (Original) A container as claimed in Claim 62 wherein the barrier included in the material is selected from the group consisting of: acrylonitrile-methyl acrylate copolymer,

ethylene vinyl alcohol (EVOH) or nylon MXD6.

64. (Original) A container as claimed in Claim 62 wherein the barrier is Barex .
65. (Original) A container as claimed in Claim 64 wherein the barrier is Barex 210 or Barex 218.
66. (Currently Amended) A container as claimed in ~~any one of Claims 62 to 65~~ Claim 62, wherein the barrier is overmoulded or sprayed onto the container.
67. (Currently Amended) A container as claimed in ~~any one of Claims 62 to 65~~ Claim 62, wherein the barrier is mixed with the material of the container, using co-injection techniques.
68. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 67~~ Claim 47, wherein the material contains one or more oxygen scavengers.
69. (Original) A container as claimed in Claim 68 wherein the oxygen scavenger is selected from a group consisting of X-312, Amosorb 3000, or a scavenger of MXD6 with metal catalysed oxygen reduction chemistry.
70. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 69~~ Claim 47 having an inorganic coating.
71. (Original) A container as claimed in Claim 70 wherein the inorganic layer is a thin layer of amorphous carbon.

72. (Currently Amended) A container as claimed in ~~Claims 70 to 74~~ Claim 70, wherein the inorganic coating is applied to the inside surface of the container.

73. (Currently Amended) A container as claimed in ~~any one of Claims 70 to 72~~ Claim 70, wherein the inorganic coating will be applied in a layer of 100 to 200nm thickness.

74. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 73~~ Claim 47, having an external organic coating.

75. (Original) A container as claimed in Claim 74 wherein the external organic coating is PVDC or a two component epoxyamine.

76. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 75~~ Claim 47, manufactured from multiple layers of the material.

77. (Currently Amended) A container as claimed in ~~any one of Claims 47 to 76~~ Claim 47, wherein the material includes one or additives selected from the group consisting of W inhibitors, antioxidants, flow modifiers, colour pigments and brighteners as known in the art.

78. (Currently Amended) A container as claimed in ~~any one of Claims 51 to 77~~ Claim 51, wherein the glass transition temperature is elevated as the amorphous thermoplastic polymer is mixed with the one or more low molecular weight hydrocarbons.

79. (Currently Amended) A container as claimed in ~~any one of Claims 51 to 78~~ Claim 51,

Serial No. New U.S. Application

Docket No. KC-0169

wherein the material has a glass transition temperature of above 80°C.